

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A rate adaptive system for optical communication networks comprising:

a plurality of optical transceivers capable of transmitting and receiving optical signals at a plurality of rates to each other, and

an optical fibre linked to said optical transceivers,

wherein said system is configured to cause said optical transceivers to transmit and receive optical signals at an initial rate and to adapt said initial rate based upon an error condition by causing said optical transceivers to transmit and receive at a different rate.

Claim 2 (previously presented): The system of claim 1, wherein said error condition is a failure to synchronize a received signal.

Claim 3 (previously presented): The system of claim 1, wherein said system is further configured to calculate an error coefficient based on said received signals, and said error condition comprise said error coefficient exceeding a predefined range.

Claim 4 (previously presented): The system of claim 1, wherein said initial rate is lowered according to predefined percentages of said initial rate in response to said error condition.

Claim 5 (previously presented): The system of claim 4, wherein said percentages are selected from the group of 75, 50, and or 25 percent of said initial rate.

Claim 6 (previously presented): The system of claim 1, wherein said initial rate is 10 Gb/s.

Claim 7 (previously presented): The system of claim 1, wherein said system is configured to operate in an optical Ethernet network.

Claim 8 (currently amended): The system ~~according to any preceding claim~~ of claim 1, wherein said system is further configured to notify a network operator in the event of said error condition.

Claim 9 (currently amended): A rate adaptive method for operating an optical communication network, comprising:

transmitting data at an initial rate,

receiving said data at said initial rate,

evaluating said data to determine if an error condition exists, and

adapting said rate based upon said evaluation by transmitting and receiving at a different rate.

Claim 10 (previously presented): The method of claim 9, wherein adapting said rate comprises lowering said initial rate according to predefined percentages of said initial rate in response to said error condition.

Claim 11 (previously presented): The method of claim 10, further comprising notifying a network operator in the event of said error condition.

Claim 12 (currently amended): An optical transceiver module for a rate adaptive system for optical communication networks comprising:

means for transmitting an optical signal via an optical fibre at a plurality of optical signal rates,

means for receiving an optical signal transmitted at ~~[[a]]~~ said plurality of optical signal rates,

means for determining an error condition, and

means for adapting ~~the~~ an optical signal transmission rate based upon the error condition by transmitting and receiving at a different rate.

Claim 13 (currently amended): A rate adaptive method for operating an optical communication network, comprising:

transmitting test signals at an initial rate,

receiving said test signals at said initial rate,

evaluating said test signals to determine if an error condition exists, and

adapting said rate based upon said evaluation by transmitting and receiving at a different rate.